## IN THE CLAIMS

Claims 1-58. Cancelled

Claim 59. (Previously Presented) A method of fluid distribution in a chemical reactor comprising the steps of:

providing a layer of a plurality of ceramic filter units, at least some of the ceramic filter units including a body having a substantially annular outer peripheral shape, a central opening extending through the body, and at least three elliptical openings extending through the body and positioned between the central opening and an outer periphery of the body so that a combination of the central opening and the at least three elliptical openings define a plurality of fluid flow passageways extending through the at least some of the plurality of ceramic filter units;

contacting an organic-based feed stream with the layer of the plurality of ceramic filter units; and

subdividing the organic-based feed stream into a plurality of smaller fluid streams by passing the organic-based feed stream through the plurality of fluid flow passageways prior to the organic-based feed stream contacting a catalyst bed in the chemical reactor.

Claim 60. Cancelled

Claim 61. (Previously Presented) A method as defined in claim 59, further including the steps of: removing contaminants from a contaminated organic-based feed stream; and providing a decontaminated and uniformly spread organic-based feed stream to a catalyst bed for further processing in the chemical reactor.

Claim 62. (Previously Presented) A method as defined in claim 59, including the step of packing the ceramic filter units into the chemical reactor with a packing factor of about 200 to 500 $ft^2/ft^3$.

Claim 63. (Previously Presented) A method as defined in claim 59, including the step of packing the ceramic filter units in graduated layers into the chemical reactor with each layer having a different packing factor of about 200 to 500 $ft^2/ft^3$.

Claim 64. (Previously Presented) A method as defined in claim 59, wherein the body of at least one of the plurality of ceramic filter units has a fluted outer peripheral surface.

Claim 65. (Previously Presented) A method as defined in claim 59, wherein the outer peripheral includes a plurality of recessed notches extending inwardly from the outer periphery towards the medial portion of the ceramic filter unit.

Claim 66. (Previously Presented) A method as defined in claim 59, wherein the at least three elliptical openings substantially surround the central opening between the central opening and the outer periphery to thereby define a ring around the central opening.

Claim 67. (Previously Presented) A method of fluid distribution in a chemical reactor comprising the steps of:

providing a layer of a plurality of ceramic filter units, at least some of the ceramic filter units including a body having a substantially polygonal outer peripheral shape, a central opening extending through the body, and at least three elliptical openings extending through the body and positioned between the central opening and an outer periphery of the body so that a combination of the central opening and the at least three elliptical openings define a plurality of fluid flow passageways extending through the at least some of the plurality of ceramic filter units;

contacting an organic-based feed stream with the layer of the plurality of ceramic filter units; and

subdividing the organic-based feed stream into a plurality of smaller fluid streams by passing the organic-based feed stream through at least some of the plurality of fluid flow passageways prior to the organic-based feed stream contacting a catalyst bed in the chemical reactor.

Claim 68. Cancelled

Claim 69. (Previously Presented) A method as defined in claim 67, further including the steps of: removing contaminants from a contaminated organic-based feed stream; and providing a decontaminated and uniformly spread organic-based feed stream to a catalyst bed for further processing in the chemical reactor.

Claim 70. (Previously Presented) A method as defined in claim 67, wherein the outer peripheral includes a plurality of notches recessed from the outer peripheral towards the medial portion of the ceramic filter unit.

Claim 71. (Previously Presented) A method as defined in claim 67, including a step of utilizing ceramic filter units wherein the outer periphery has a polygonal shape with a length of about 1/8 inches to about 3 inches.

Claim 72. (Previously Presented) A method as defined in claim 67, wherein the body of at least one of the plurality of ceramic filter units has a substantially polygonal shape selected from the group consisting of triangles, quadrilaterals, squares, rectangles, pentagons, hexagons, heptagons, and octagons.

Claim 73. (Previously Presented) A method as defined in claim 67, wherein the body of at least one of the plurality of ceramic filter units has a square shape with a width of about 1/4

inches to about 3 inches.

Claim 74. (Previously Presented) A method as defined in claim 67, wherein the body of at least one of the plurality of ceramic filter units has a rectangular shape with a length of about 1/4 inches to about 3 inches and a width of about 1/4 inches to about 3 inches.

Claim 75. (Previously Presented) A method as defined in claim 67, wherein the body of at least one of the plurality of ceramic filter units has a closed-planed shape with a width of about 1/4 inches to about 3 inches.

Claim 76. (Previously Presented) A method as defined in claim 67, wherein the outer peripheral includes a plurality of recessed notches extending inwardly from the outer periphery towards the medial portion of the ceramic filter unit.

Claim 77. (Previously Presented) A method as defined in claim 67, wherein the at least three elliptical openings substantially surround the central opening between the central opening and the outer periphery to thereby define a ring around the central opening.

Claim 78. (Previously Presented) A method of fluid distribution in a chemical reactor comprising the steps of:

providing a layer of a plurality of ceramic filter units, at least some of the ceramic filter units including a body, a central opening extending through the body, and at least three elliptical openings also extending through the body and positioned between the central opening and an outer periphery of the body so that a combination of the central opening and the at least three elliptical openings define a plurality of fluid flow passageways extending through each of the plurality of ceramic filter units;

contacting an organic-based feed stream with the layer of the plurality of ceramic filter units; and

subdividing the organic-based feed stream into a plurality of smaller fluid streams by passing the organic-based feed stream through the at least some of the plurality of fluid flow passageways prior to the organic-based feed stream contacting a catalyst bed in the chemical reactor.

Claim 79. (Previously Presented) A method as defined in Claim 59, wherein the central opening is circular and the elliptical openings are non-circular.

Claim 80. (Previously Presented) A method as defined in Claim 67, wherein the central opening is circular and the elliptical openings are non-circular.

Claim 81. (Previously Presented) A method as defined in Claim 78, wherein the central opening is circular and the elliptical openings are non-circular.

Claim 82. (Previously Presented) A method as defined in Claim 64, wherein the fluted outer peripheral surface of the at least one of the plurality of ceramic filter units has sharp corners.

Claim 83. (Previously Presented) A method as defined in Claim 65, wherein at least one of the recessed notches of the outer periphery has sharp corners.

Claim 84. (Previously Presented) A method as defined in Claim 67, wherein the outer periphery has sharp corners.

Claim 85. (Previously Presented) A method as defined in Claim 76, wherein at least one of the recessed notches on the outer periphery has sharp corners.

Claim 86. (Previously Presented) A method of fluid distribution in a chemical reactor comprising the steps of:

providing a layer of a plurality of ceramic filter units, at least some of the ceramic filter units including a body having a substantially annular outer peripheral shape, a central opening

extending through the body, and at least three trisoid-shaped openings extending through the body and positioned between the central opening and an outer periphery of the body so that a combination of the central opening and the at least three trisoid-shaped openings define a plurality of fluid flow passageways extending through the at least some of the plurality of ceramic filter units;

contacting an organic-based feed stream with the layer of the plurality of ceramic filter units; and

subdividing the organic-based feed stream into a plurality of smaller fluid streams by passing the organic-based feed stream through the plurality of fluid flow passageways prior to the organic-based feed stream contacting a catalyst bed in the chemical reactor.

Claim 87. (Previously Presented) A method of fluid distribution in a chemical reactor comprising the steps of:

providing a layer of a plurality of ceramic filter units, at least some of the ceramic filter units including a body having a substantially polygonal outer peripheral shape, a central opening extending through the body, and at least three trisoid-shaped openings extending through the body and positioned between the central opening and an outer periphery of the body so that a combination of the central opening and the at least three trisoid-shaped openings define a plurality of fluid flow passageways extending through the at least some of the plurality of ceramic filter units;

contacting an organic-based feed stream with the layer of the plurality of ceramic filter units; and

subdividing the organic-based feed stream into a plurality of smaller fluid streams by passing the organic-based feed stream through at least some of the plurality of fluid flow passageways prior to the organic-based feed stream contacting a catalyst bed in the chemical

reactor.

Claim 88. (Previously Presented) A method of fluid distribution in a chemical reactor comprising the steps of:

providing a layer of a plurality of ceramic filter units, at least some of the ceramic filter units including a body, a central opening extending through the body, and at least three trisoid-shaped openings also extending through the body and positioned between the central opening and an outer periphery of the body so that a combination of the central opening and the at least three trisoid-shaped openings define a plurality of fluid flow passageways extending through each of the plurality of ceramic filter units;

contacting an organic-based feed stream with the layer of the plurality of ceramic filter units; and

subdividing the organic-based feed stream into a plurality of smaller fluid streams by passing the organic-based feed stream through the at least some of the plurality of fluid flow passageways prior to the organic-based feed stream contacting a catalyst bed in the chemical reactor.

## IN THE CLAIMS

Claims 1-58. Cancelled

Claim 59. (Previously Presented) A method of fluid distribution in a chemical reactor comprising the steps of:

providing a layer of a plurality of ceramic filter units, at least some of the ceramic filter units including a body having a substantially annular outer peripheral shape, a central opening extending through the body, and at least three elliptical openings extending through the body and positioned between the central opening and an outer periphery of the body so that a combination of the central opening and the at least three elliptical openings define a plurality of fluid flow passageways extending through the at least some of the plurality of ceramic filter units;

contacting an organic-based feed stream with the layer of the plurality of ceramic filter units; and

subdividing the organic-based feed stream into a plurality of smaller fluid streams by passing the organic-based feed stream through the plurality of fluid flow passageways prior to the organic-based feed stream contacting a catalyst bed in the chemical reactor.

Claim 60. Cancelled

Claim 61. (Previously Presented) A method as defined in claim 59, further including the steps of: removing contaminants from a contaminated organic-based feed stream; and providing a decontaminated and uniformly spread organic-based feed stream to a catalyst bed for further processing in the chemical reactor.

Claim 62. (Previously Presented) A method as defined in claim 59, including the step of packing the ceramic filter units into the chemical reactor with a packing factor of about 200 to 500 $ft^2/ft^3$.

Claim 63. (Previously Presented) A method as defined in claim 59, including the step of packing the ceramic filter units in graduated layers into the chemical reactor with each layer having a different packing factor of about 200 to 500 $ft^2/ft^3$.

Claim 64. (Previously Presented) A method as defined in claim 59, wherein the body of at least one of the plurality of ceramic filter units has a fluted outer peripheral surface.

Claim 65. (Previously Presented) A method as defined in claim 59, wherein the outer peripheral includes a plurality of recessed notches extending inwardly from the outer periphery towards the medial portion of the ceramic filter unit.

Claim 66. (Previously Presented) A method as defined in claim 59, wherein the at least three elliptical openings substantially surround the central opening between the central opening and the outer periphery to thereby define a ring around the central opening.

Claim 67. (Previously Presented) A method of fluid distribution in a chemical reactor comprising the steps of:

providing a layer of a plurality of ceramic filter units, at least some of the ceramic filter units including a body having a substantially polygonal outer peripheral shape, a central opening extending through the body, and at least three elliptical openings extending through the body and positioned between the central opening and an outer periphery of the body so that a combination of the central opening and the at least three elliptical openings define a plurality of fluid flow passageways extending through the at least some of the plurality of ceramic filter units;

contacting an organic-based feed stream with the layer of the plurality of ceramic filter units; and

subdividing the organic-based feed stream into a plurality of smaller fluid streams by passing the organic-based feed stream through at least some of the plurality of fluid flow passageways prior to the organic-based feed stream contacting a catalyst bed in the chemical reactor.

Claim 68. Cancelled

Claim 69. (Previously Presented) A method as defined in claim 67, further including the steps of: removing contaminants from a contaminated organic-based feed stream; and providing a decontaminated and uniformly spread organic-based feed stream to a catalyst bed for further processing in the chemical reactor.

Claim 70. (Previously Presented) A method as defined in claim 67, wherein the outer peripheral includes a plurality of notches recessed from the outer peripheral towards the medial portion of the ceramic filter unit.

Claim 71. (Previously Presented) A method as defined in claim 67, including a step of utilizing ceramic filter units wherein the outer periphery has a polygonal shape with a length of about 1/8 inches to about 3 inches.

Claim 72. (Previously Presented) A method as defined in claim 67, wherein the body of at least one of the plurality of ceramic filter units has a substantially polygonal shape selected from the group consisting of triangles, quadrilaterals, squares, rectangles, pentagons, hexagons, heptagons, and octagons.

Claim 73. (Previously Presented) A method as defined in claim 67, wherein the body of at least one of the plurality of ceramic filter units has a square shape with a width of about 1/4

inches to about 3 inches.

Claim 74. (Previously Presented) A method as defined in claim 67, wherein the body of at least one of the plurality of ceramic filter units has a rectangular shape with a length of about 1/4 inches to about 3 inches and a width of about 1/4 inches to about 3 inches.

Claim 75. (Previously Presented) A method as defined in claim 67, wherein the body of at least one of the plurality of ceramic filter units has a closed-planed shape with a width of about 1/4 inches to about 3 inches.

Claim 76. (Previously Presented) A method as defined in claim 67, wherein the outer peripheral includes a plurality of recessed notches extending inwardly from the outer periphery towards the medial portion of the ceramic filter unit.

Claim 77. (Previously Presented) A method as defined in claim 67, wherein the at least three elliptical openings substantially surround the central opening between the central opening and the outer periphery to thereby define a ring around the central opening.

Claim 78. (Previously Presented) A method of fluid distribution in a chemical reactor comprising the steps of:

providing a layer of a plurality of ceramic filter units, at least some of the ceramic filter units including a body, a central opening extending through the body, and at least three elliptical openings also extending through the body and positioned between the central opening and an outer periphery of the body so that a combination of the central opening and the at least three elliptical openings define a plurality of fluid flow passageways extending through each of the plurality of ceramic filter units;

contacting an organic-based feed stream with the layer of the plurality of ceramic filter units; and

subdividing the organic-based feed stream into a plurality of smaller fluid streams by passing the organic-based feed stream through the at least some of the plurality of fluid flow passageways prior to the organic-based feed stream contacting a catalyst bed in the chemical reactor.

Claim 79. (Previously Presented) A method as defined in Claim 59, wherein the central opening is circular and the elliptical openings are non-circular.

Claim 80. (Previously Presented) A method as defined in Claim 67, wherein the central opening is circular and the elliptical openings are non-circular.

Claim 81. (Previously Presented) A method as defined in Claim 78, wherein the central opening is circular and the elliptical openings are non-circular.

Claim 82. (Previously Presented) A method as defined in Claim 64, wherein the fluted outer peripheral surface of the at least one of the plurality of ceramic filter units has sharp corners.

Claim 83. (Previously Presented) A method as defined in Claim 65, wherein at least one of the recessed notches of the outer periphery has sharp corners.

Claim 84. (Previously Presented) A method as defined in Claim 67, wherein the outer periphery has sharp corners.

Claim 85. (Previously Presented) A method as defined in Claim 76, wherein at least one of the recessed notches on the outer periphery has sharp corners.

Claim 86. (Previously Presented) A method of fluid distribution in a chemical reactor comprising the steps of:

providing a layer of a plurality of ceramic filter units, at least some of the ceramic filter units including a body having a substantially annular outer peripheral shape, a central opening

extending through the body, and at least three trisoid-shaped openings extending through the body and positioned between the central opening and an outer periphery of the body so that a combination of the central opening and the at least three trisoid-shaped openings define a plurality of fluid flow passageways extending through the at least some of the plurality of ceramic filter units;

contacting an organic-based feed stream with the layer of the plurality of ceramic filter units; and

subdividing the organic-based feed stream into a plurality of smaller fluid streams by passing the organic-based feed stream through the plurality of fluid flow passageways prior to the organic-based feed stream contacting a catalyst bed in the chemical reactor.

Claim 87. (Previously Presented) A method of fluid distribution in a chemical reactor comprising the steps of:

providing a layer of a plurality of ceramic filter units, at least some of the ceramic filter units including a body having a substantially polygonal outer peripheral shape, a central opening extending through the body, and at least three trisoid-shaped openings extending through the body and positioned between the central opening and an outer periphery of the body so that a combination of the central opening and the at least three trisoid-shaped openings define a plurality of fluid flow passageways extending through the at least some of the plurality of ceramic filter units;

contacting an organic-based feed stream with the layer of the plurality of ceramic filter units; and

subdividing the organic-based feed stream into a plurality of smaller fluid streams by passing the organic-based feed stream through at least some of the plurality of fluid flow passageways prior to the organic-based feed stream contacting a catalyst bed in the chemical

reactor.

Claim 88. (Previously Presented) A method of fluid distribution in a chemical reactor comprising the steps of:

providing a layer of a plurality of ceramic filter units, at least some of the ceramic filter units including a body, a central opening extending through the body, and at least three trisoid-shaped openings also extending through the body and positioned between the central opening and an outer periphery of the body so that a combination of the central opening and the at least three trisoid-shaped openings define a plurality of fluid flow passageways extending through each of the plurality of ceramic filter units;

contacting an organic-based feed stream with the layer of the plurality of ceramic filter units; and

subdividing the organic-based feed stream into a plurality of smaller fluid streams by passing the organic-based feed stream through the at least some of the plurality of fluid flow passageways prior to the organic-based feed stream contacting a catalyst bed in the chemical reactor.

Claim 89. (New) A method of fluid distribution in a chemical reactor comprising the steps of:

providing a layer of a plurality of ceramic filter units, at least some of the ceramic filter units including a body and at least three trisoid-shaped openings extending through the body and positioned between a medial portion of the unit and an outer periphery of the unit so that the at least three trisoid-shaped openings define a plurality of fluid flow passageways extending through each of the plurality of ceramic filter units;

contacting an organic-based feed stream with the layer of the plurality of ceramic filter units; and

subdividing the organic-based feed stream into a plurality of smaller fluid streams by passing the organic-based feed stream through the at least some of the plurality of fluid flow passageways prior to the organic-based feed stream contacting a catalyst bed in the chemical reactor.

Claim 90. (New) The method of claim 89, wherein the body has a substantially annular outer peripheral shape.

Claim 91. (New) The method of claim 90, wherein the body has a circular outer peripheral shape.

Claim 92. (New) The method of claim 89, wherein the body includes five trisoid-shaped openings.

Claim 93. (New) The method of claim 89, wherein the body includes six trisoid-shaped openings.

Claim 94. (New) A method of fluid distribution in a chemical reactor comprising the steps of:

providing a layer of a plurality of ceramic filter units, at least some of the ceramic filter units including a body having a circular outer peripheral shape and at least three elliptical openings extending through the body and positioned between a medial portion of the unit and an outer periphery of the unit so that the at least three elliptical openings define a plurality of fluid flow passageways extending through the at least some of the plurality of ceramic filter units;

contacting an organic-based feed stream with the layer of the plurality of ceramic filter units; and

subdividing the organic-based feed stream into a plurality of smaller fluid streams by passing the

organic-based feed stream through the plurality of fluid flow passageways prior to the organic-based feed stream contacting a catalyst bed in the chemical reactor.

Claim 95. (New) The method of claim 94, wherein the body includes six elliptical openings.